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S2	99381	CODED OR PROGRAMMED OR PREPROGRAMMED OR INSTRUCTED OR CONF-IGURED OR PREDETERMINED OR PRESET
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S4	644612	REASON? ? OR EXPLAIN? OR EXPLANATORY OR JUSTIFICATION?
S5	9162	("NOT" OR UN)(2N)S3
S6	0	S1 AND S2 AND S3 AND S4 AND S5
S7	0	S1 AND (S2(5N)S3) AND (S4 OR S5)
S8	0	S1 AND (S2(5N)S3)
S9	0	S1 AND (S4(5N)S5)
S10	1159952	ACCOUNT? ? OR RECORD? ? OR LOG OR LOGS OR BANKBOOK? OR BAL-ANC?
S11	2	S10 AND S2 AND S3 AND S4 AND S5
S12	6	S10 AND (S2(5N)S3) AND (S4 OR S5)
S13	33	S10(S)(S2(5N)S3)
S14	32	S13 NOT PY>2001
S15	32	S13 NOT PD>20010723
S16	29	RD (unique items)
S17	4	S10 AND (S4(5N)S5)

EKD   April 22, 2003

11/5/1   (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
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09708584
PT falha metas em Marrocos
  Morocco: Medi telecom misses results target
Diario Economico (YXP)   25 Feb 2002
Language: PORTUGUESE

Medi Telecom, the Moroccan mobile carrier, could **not close** 2001 with
positive ebitda. Thus, contrary to expectations ebitda was negative in
almost EUR 10mn. Losses also increased, surpassing the EUR 188mn registered
in 2000. The **reasons** for such poor performance relate, to changes
introduced by the telecomms regulator in terms of interconnection charges.
The fact of being confronted with a substantial tariff increase, which was
not passed onto customers, Medi will rationalise the value of investments
 programmed for 2002. Contrary to 2001 when undertook EUR 237mn in
investments, the company intends to spend a little less, around EUR 200mn.
The company currently has 1.1mn clients, more 60% than 2000, when it
started operating. From all its customer base, 90% originate from the
prepaid segment, whereas the remaining 10% come from contracts. In terms of
Moroccan mobile sector, Medi **accounts** for 40% of the market share, and it
owns 1,000 stations covering 80% of the population. *
COMPANY: MEDI TELECOM

PRODUCT: Cellular Radio Services (4811CR);
EVENT: Company Reports & **Accounts** (83);
COUNTRY: Morocco (7MOR);

11/5/2   (Item 1 from file: 99)
DIALOG(R)File 99:Wilson Appl. Sci & Tech Abs
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1559955 H.W. WILSON RECORD NUMBER: BAST93045215
Steam trap survey cuts losses
Aschoff, T. B;
Plant Engineering v. 47 (July 8 '93) p. 78-80
DOCUMENT TYPE: Feature Article ISSN: 0032-082X LANGUAGE: English
RECORD STATUS: Corrected or revised record

ABSTRACT: Steam trap surveys are necessary for a proactive maintenance
program. The **justification** of steam trap surveys to locate failed open
and failed **closed** traps is **not** limited to steam costs. Factors that
also need to be considered include the cost and availability of water; the
cost of handling, pumping, and treating water; and the reduced production.
A steam trap survey consists of a planned examination of a number of traps
with the methodical cataloging of essential data pertaining to each. The
data should include the type and size of trap, steam pressure at the trap
inlet, temperature at inlet and outlet, and operating condition. Traps
should be tagged and **coded** to identify their location and to facilitate
record keeping and reporting. The best survey results are obtained with a
combination of the various methods of checking traps: visual and aural
observation and temperature measurements. .
DESCRIPTORS: Steam traps--Maintenance and repair; Factories--Energy usage;

01606771   ORDER NO: AAD13-87000
OOPHORECTOMY AT THE TIME OF HYSTERECTOMY: A WOMAN'S DECISION
  Author: WEBB, LUANN SOLSVIG
  Degree: M.S.
  Year: 1997
  Corporate Source/Institution: UNIVERSITY OF ALASKA ANCHORAGE (0922)
  Source: VOLUME 36/01 of MASTERS ABSTRACTS.
           PAGE 165. 57 PAGES
  Descriptors: HEALTH SCIENCES, NURSING ; HEALTH SCIENCES, ONCOLOGY ;
                HEALTH SCIENCES, OBSTETRICS AND GYNECOLOGY
  Descriptor Codes: 0569; 0992; 0380

     The current surgical practice at hysterectomy is to preserve the
ovaries in premenopausal women, while routinely performing oophorectomies
in women 40 years and older. When women with healthy ovaries are given a
choice about ovary retention or removal, the **reasons** for selecting one
option over the other are not well documented in the literature or in the
medical **record** . A descriptive qualitative study was conducted to explore
how women, when faced with a hysterectomy, decide what to do with their
ovaries. Semi-structured interviews with open- **ended** questions were
audiotaped. Data were **coded** , analyzed and compared. Three major
categories emerged from the data: Facing the decision, Accepting the
decision, and Living with the decision. Each category having subcategories
to fully describe the experiences. The results of this study provide
knowledge about the complexity of the decision-making process and the need
for more individualized guidance throughout the decision-making process.

01178005   ORDER NO: AAD91-29991
**ANALYSIS, OPTIMIZATION, AND MECHANISTIC MODELLING OF ELECTROCHEMICAL
SURFACE GRINDING (ECG) PROCESS (GRINDING)**
  Author: ILHAN, RECEP ERKAN
  Degree: PH.D.
  Year: 1991
  Corporate Source/Institution: LEHIGH UNIVERSITY (0105)
  Adviser: G. SATHYANARAYANAN
  Source: VOLUME 52/05-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
           PAGE 2719. 309 PAGES
  Descriptors: ENGINEERING, INDUSTRIAL
  Descriptor Codes: 0546

     The effects of the ECG process parameters have shown that certain
machining conditions cause the short-circuiting and anodic passivity which
significantly affect the ECG process performance, leading to an increase in
the mechanical action. Based on the results and statistical analysis of the
data from the experimental studies, an off-line optimization methodology
has been achieved for the ECG process. This optimization technique employs
several process variables to simultaneously optimize wheel wear, surface
finish, spindle load, volumetric metal removal rate, bottom overcut depth,
and side overcut width. The results indicate that a **balance** between
mechanical and electrochemical actions has been achieved and the trade-off
between the ECG process responses was minimized. To achieve a more
realistic approach for modelling the ECG process, a mechanistic model has
been developed to overcome the difficulties that exist with the theoretical
calculations. ECG geometry and kinematics are analyzed and the mechanistic
behaviour of the ECG process is **explained** with respect to three different
cutting dynamics. Also, a parameter design approach has been utilized to
minimize the variations in bottom overcut depth while keeping its mean

close to a **predetermined** target value. Parameter design technique provides a guide for ECG users to select proper levels for the parameters.

The mechanistic behaviour of the ECG process is **explained** with respect to three different cutting dynamics. In steady state cutting conditions, it has been shown that mechanical forces are observed on the wheel peripheral contact length between the initial contact point of the ECG wheel and the end point of the wheel-workpiece contact. This leads to two different wheel peripheral contact areas and each of these areas shows separate mechanistic behaviour. The depth of cut for combined mechanical and electrochemical actions has been used as a tool to calculate the mechanical and electrochemical volumetric metal removal rates without considering them independently.

12/5/3   (Item 3 from file: 35)
DIALOG(R)File   35:Dissertation Abs Online
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846014   ORDER NO: AAD84-14604
INSIDE A COMMUNITY COLLEGE BASIC SKILLS CLASS: A CASE STUDY (STUDY, DROP OUTS, ADULT LEARNERS)
   Author: GARSTKA, PAULINE ANN
   Degree: ED.D.
   Year: 1984
   Corporate Source/Institution: PEPPERDINE UNIVERSITY (6009)
   Source: VOLUME 45/03-A OF DISSERTATION ABSTRACTS INTERNATIONAL.
           PAGE 732.   166 PAGES
   Descriptors: EDUCATION, COMMUNITY COLLEGE
   Descriptor Codes: 0275

     Statement of the Problem. This study had a threefold specific purpose: the collection of qualitative data about community college basic skills students and classroom environment; analysis of data to determine if they supported or negated leading researchers' identification of students' characteristics and behaviors; and formulation of hypotheses for further research.
     Procedure. During fall, 1981, a case study was conducted of an evening English Reading and Writing Basic Skills class. Qualitative research methods were used to conduct the study and the process consisted of three stages. During the entry stage, arrangements, for and actual entry into the field occurred. During the data gathering stage, the following ethnographic research techniques were used to collect the data: participant observation, taking field notes, interviewing, and examining **records** . During the **closing** stage, the data were organized, **coded** , analyzed, and interpreted. Hypotheses were formulated.
     Findings. The research indicated that basic skills students in this class had the following characteristics. Students worked full-time and enrolled in school part-time to improve their English and their employment skills. They possessed poor study skills and experienced little previous academic success. They responded to group learning activities that involved them in discussion. They did not place a high priority on course completion and two-thirds of them dropped out for four basic **reasons** : class too hard, **reasons** related to job, illness and personal problems. This research supported the findings reported by other researchers.
     The following hypotheses were formulated about basic skills students. (1) Students will be more successful in class and less prone to drop if they receive prior instruction in study skills and training in self-directed learning. (2) Students will be more successful in reaching their academic goals if they are in classrooms that immediately establish an accepting and supportive environment, that allow them to be involved in self-diagnosis of their learning needs, and that allow them to participate in planning their own learning activities. (3) Students will be more responsive to learning activities that involve them in group discussion and employ visual aids. (4) Students will place a higher priority on course completion if they are involved in making decisions about their own learning.

758238   ORDER NO: AAD81-17847
MEXICO: ECONOMIC POLICY ANALYSIS, 1978-83: A MACROECONOMETRIC MODEL OF MEXICO AND CONTROL THEORY APPLICATIONS
   Author: RUFATT, OSCAR ADOLFO
   Degree: PH.D.
   Year: 1981
   Corporate Source/Institution: UNIVERSITY OF PENNSYLVANIA (0175)
   Source: VOLUME 42/05-A OF DISSERTATION ABSTRACTS INTERNATIONAL.
            PAGE 2219.   164 PAGES
   Descriptors: ECONOMICS, GENERAL
   Descriptor Codes: 0501

     The purpose of this study is a double one: first, to develop an
analytical framework for assessing present and future developments of the
Mexican economy, and second, given a set of normally conflicting goals of
economic growth, income distribution, price and **balance** of payments
stability, to find an economic policy package that would meet those targets
at a "minimum cost."
     The first objective is met with the development of a macroeconomic
model of the Mexican economy. It is a 360 equation, dynamic, simultaneous
system, with feedbacks among real output, prices, financial, fiscal and
foreign trade variables as the major building blocks for the rest of the
model.
     The second purpose is met with the application of optimal control
theory to the macroeconomic model. Broadly defined the control problem can
be defined in the following terms: (a) given an econometric model of the
economy and (b) given an objective function which represents the targets
and objectives of economic policy, the control problem is to find a set of
values for some of the exogenous variables that will produce a path for a
chosen subset of the endogenous variables as **close** as possible to some
preset values.
     There are at least three basic approaches which have been used to
solve optimal control problems of the type used in this study. The solution
method used is identical to the approach used by Robert Holbrook and
similar to the approach used by Kenneth Garbade. It is a successive
approximation method.
     This study uses a quadratic asymmetric loss function with four
targets and four instruments. In addition, in order to find realistic
solutions, six constraints were imposed on the feasible solution paths for
the instruments. Thus, from a formal point of view, the problem is
specified with a loss function with ten "targets" (four targets proper and
six constraints) and four policy instruments. The four targets are: the
growth rate of real GDP, the annual rate of inflation, the wage income
share and the ratio of the **balance** on current **account** of the BOP to
GDP. The four policy variables are: government spending, the reserve
requirement ratio on demand deposits, the money wage rate and the rate of
exchange.
     Using a baseline forecast for the 1978-83 period as a starting
point, seven alternative simulations were performed. The targets and
constraints on the instruments are the same for all seven simulations. Each
simulation, however, has a different set of weights associated with the
targets.
     From the point of view of policy analysis, the results obtained
seem to be conclusive enough both in terms of the usefulness of this
technique for the control of large scale models and in the definition of
economic policy guidelines. The nature of the economic system, the
existence of interdependent and conflicting relationships among the various
targets and implied interdependence among the policy instruments requires
that economic policy should be consistent. That is, adjustments in one

policy instrument will affect all the targets simultaneously and the type
of impact will depend on the nature of the policy package as a whole.
Control theory does not only prove useful as a normative instrument in the
area of economic policy, but also as an important additional tool in the
area of economic forecasting. A priori assessment of the political
environment can provide the economist with an adequate picture of the
pressures that will be exercised on the policy makers and which will shape
the priorities of economic policy.

The social-political-economic outlook of Mexico shows that the
emphasis of economic policy will be on the improvement of social and living
conditions, increased employment opportunities and better income
distribution. The increased export potential has simultaneously done away
with any significant pressures in the external sector. Thence, without any
meaningful constraints on the **balance** of payments, the Mexican economy
will find policy makers striving for high growth rates (8% or higher), high
rates of growth in government spending and liberal wage policies. Finally,
and for the same **reasons** , the efforts to keep the inflation rate under
control will result in a virtually fixed exchange rate through the end of
the forecasting period.

12/5/5   (Item 1 from file: 583)
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04266357
IBM CLOSES OFFICES FOR A WEEK
  US - IBM CLOSES OFFICES FOR A WEEK
Wall Street Journal Europe (WSJ)   11 May 1991 p3

IBM has made an internal announcement that its headquarters offices in the
New York area will close for the 4 July week in 1991, as a cost-cutting
measure. Some 18k staff of a total US workforce of 200k staff are affected.
Offices which deal with the public will **not   close** . The firm has also
 instructed   its US employees to take vacation days owing to them, which
they have previously been allowed to defer in favour of a lump sum on
retirement. Staff will be restricted to 10 days deferred vacation. This
will help the IBM **balance** sheet, since the firm will no longer need to
keep a reserve to cover vacation costs.

PRODUCT: Mainframe Computers (3573MF); Microcomputers (3573MI);
    Minicomputers (3573MN);
EVENT: COMPANIES ACTIVITIES (10);
COUNTRY: United States (1USA); NATO Countries (420); South East Asia
    Treaty Organisation (913);

12/5/6   (Item 1 from file: 233)
DIALOG(R)File 233:Internet & Personal Comp. Abs.
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00534936   99PW05-006
   Mimio: electronic whiteboard substitute
   Epler, Anita
   PC World , May 1, 1999 , v17 n5 p85, 1 Page(s)
   ISSN: 0737-8939
   Company Name: Virtual Ink
   URL: http://www.virtual-ink.com
   Product Name: Virtual Ink Mimio
   Languages: English
   Document Type: Hardware Review
   Grade (of Product Reviewed): B
   Hardware/Software Compatibility: IBM PC Compatible
   Geographic Location: United States
   Presents a favorable review of the Mimio ($499), a portable electronic

whiteboard solution from Virtual Ink (617). **Explains** that this is a simplified solution for capturing data from conventional whiteboards by retrofitting with a **folding** bar and using color- **coded** dry-erase marker sheaths and a pressure sensitive eraser. **Explains** that the position-sensing optics of the bar and the ultrasonic/infrared transmission of the market sheaths make it possible for the device to **record** pen strokes as images via serial or USB connection to a computer. Says it is easy to set up and works on whiteboards up to 4-by-8 feet in size. Notes that the cups may loosen from the board unexpectedly and the pens somet require a lot of pressure. Points out the inability to convert the handwriting to editable text. Concludes this is no more expensive and a lot more portable than integrated electronic whiteboards. Includes one photo and one product summary. (kgh)

Descriptors: Whiteboarding; Peripherals; Input/Output; Portable
Identifiers: Virtual Ink Mimio; Virtual Ink

01691661   ORDER NO: AADMQ-35990
THE EFFECTIVENESS OF VISUAL FEEDBACK IN RETRAINING BALANCE FOLLOWING ACUTE STROKE
  Author: WALKER, CATHERINE ANN
  Degree: M.SC.
  Year: 1999
  Corporate Source/Institution: QUEEN'S UNIVERSITY AT KINGSTON (CANADA) (
        0283)
  Adviser: E. CULHAM
  Source: VOLUME 37/04 of MASTERS ABSTRACTS.
        PAGE 1211. 109 PAGES
  Descriptors: HEALTH SCIENCES, REHABILITATION AND THERAPY
  Descriptor Codes: 0382
  ISBN: 0-612-35990-5

     The purpose of the present study was to compare the effectiveness of
visual feedback of the position of the center of gravity (COG) to
conventional physical therapy in improving functional performance and
balance . The experimental treatment program included a series of
activities using visual feedback. The **Balance** Master$\rm\sp{TM}$ computer
system provided the subjects with online information about their center of
gravity and weight distribution. The conventional program included
exercises designed to encourage symmetrical stance, increased weight
bearing on the affected side and dynamic weight shifting during the
performance of functional tasks. The 2 groups and controls were compared on
static and functional measures of **balance** , at baseline, post-training and
one month following the cessation of training. The static measures of
balance included postural sway with the eyes open and **closed** and
habitual and **instructed** even weight distribution. The functional measures
of **balance** included the Berg **Balance** Scale, gait velocity, and the
Timed Up and Go. A one-way analysis of variance for repeated measures, with
one between subject factor (group) and one within subject factor (time) was
performed for each outcome measure. (Abstract shortened by UMI.)

01606771   ORDER NO: AAD13-87000
OOPHORECTOMY AT THE TIME OF HYSTERECTOMY: A WOMAN'S DECISION
  Author: WEBB, LUANN SOLSVIG
  Degree: M.S.
  Year: 1997
  Corporate Source/Institution: UNIVERSITY OF ALASKA ANCHORAGE (0922)
  Source: VOLUME 36/01 of MASTERS ABSTRACTS.
        PAGE 165. 57 PAGES
  Descriptors: HEALTH SCIENCES, NURSING ; HEALTH SCIENCES, ONCOLOGY ;
              HEALTH SCIENCES, OBSTETRICS AND GYNECOLOGY
  Descriptor Codes: 0569; 0992; 0380

     The current surgical practice at hysterectomy is to preserve the
ovaries in premenopausal women, while routinely performing oophorectomies
in women 40 years and older. When women with healthy ovaries are given a
choice about ovary retention or removal, the reasons for selecting one
option over the other are not well documented in the literature or in the
medical **record** . A descriptive qualitative study was conducted to explore
how women, when faced with a hysterectomy, decide what to do with their
ovaries. Semi-structured interviews with open- **ended** questions were
audiotaped. Data were **coded** , analyzed and compared. Three major
categories emerged from the data: Facing the decision, Accepting the
decision, and Living with the decision. Each category having subcategories

to fully describe the experiences. The results of this study provide knowledge about the complexity of the decision-making process and the need for more individualized guidance throughout the decision-making process.

16/5/3   (Item 3 from file: 35)

01491873 ORDER NO: AADAA-I9622028
MAKING IT: A QUALITATIVE STUDY OF RESILIENCE AMONG SINGLE MOTHERS RAISING DAUGHTERS IN RISKY NEIGHBORHOODS
    Author: BRODSKY, ANNE E.
    Degree: PH.D.
    Year: 1995
    Corporate Source/Institution: UNIVERSITY OF MARYLAND COLLEGE PARK (0117)
    Adviser: RAYMOND P. LORION
    Source: VOLUME 57/03-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
             PAGE 2144.   194 PAGES
    Descriptors: PSYCHOLOGY, CLINICAL ; WOMEN'S STUDIES ; SOCIOLOGY,
                  INDIVIDUAL AND FAMILY STUDIES ; PSYCHOLOGY, SOCIAL
    Descriptor Codes: 0622; 0453; 0628; 0451

    Most prior research has identified only pitfalls for urban, low-income, African American, single mothers. This qualitative study focused on resilient single mothers and using semi-structured interviews allowed participants to define and describe their own experiences, both stresses and strategies for coping. Ten women who had been single mothers for at least two years were identified as resilient by school-based key informants and participated in two hour-long individual interviews. The risky neighborhoods in which these women live are urban neighborhoods characterized by poverty, violence, crime and drugs. A literature review and focus group were utilized to develop initial interview topics and coding formats. Interviews were taped and transcribed, and **coded** using an open- **ended** recursive template. Participants described a unique **balance** of both the stresses and resources existing in eight dimensions in their lives: self-attributes, role as parent, family, friends, male significant others, money, spirituality, and their neighborhood. Each participant had a **balance** based on a unique person-environment fit. Resilience or "making it" was found to involve both the attainment of goals and the constant process of reaching further. Participants were able to both appreciate their current status and were motivated to strive for more. The findings reported present a more heterogeneous and emic picture of urban, low-income, African-American, single mothers, shed light on the processes of resilience, and also have implications for the design and implementation of intervention to support further successes among other women in similar situations.

16/5/4   (Item 4 from file: 35)

01349948 ORDER NO: AADNN-84451
THE NATURE OF MOTOR-CONTROL STRATEGIES UNDERLYING THE LEARNING OF A KICKING TASK (MOTOR CONTROL)
    Author: YOUNG, RAYMOND PAUL
    Degree: PH.D.
    Year: 1991
    Corporate Source/Institution: UNIVERSITY OF WATERLOO (CANADA) (1141)
    Adviser: RON MARTENIUK
    Source: VOLUME 54/11-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
             PAGE 5556.   178 PAGES
    Descriptors: BIOLOGY, PHYSIOLOGY
    Descriptor Codes: 0433
    ISBN: 0-315-84451-5

The present study attempted to determine if acquisition of a complex movement produces changes compatible with either of two major theories of motor control; motor equivalence or motor programming. This was done by examining the changes in kinematics, kinetics (i.e., net muscle moments), and muscle activation patterns, as reflected by EMGs, that occurred as a tri-articular kicking movement was learned. Four male subjects performed 15 blocks, with 16 trials per block, of a tri-articular kicking movement, with a 1.67 kg weight strapped to their foot. A four-minute rest was given after each block of trials to minimize fatique. Subjects were **instructed** to perform all movements as **close** as possible to a goal movement time of 400 ms, while maintaining spatial accuracy. An optoelectric imaging system was used to **record** movement kinematics for the hip, knee, ankle, and toe of the kicking leg. Using inverse dynamics, net-muscle-moment profiles were obtained for each of the hip, knee, and ankle joints. Mechanical power analyses were also performed. Surface EMG data were collected, and then processed to obtain linear envelopes, for the following muscles: tibialis anterior, lateral gastrocnemius, soleus, vastus lateralis, rectus femoris, semitendinosus, and gluteus maximus.

Temporal accuracy of movement production increased over trial blocks, demonstrating that learning had taken place. With learning, end-effector-path distance decreased, and so did moment variability. In contrast, kinematic variability was small for all blocks and, therefore, did not change as a function of learning, nor did the end-effector path become smoother with learning as evidenced by a jerk-cost analysis. Ankle-power profiles changed with learning due to moment profiles migrating towards specific motor-pattern trajectories; however, this was less apparent at the knee and hip joints. Inter-joint coordination as measured by cross-correlations at the level of net muscle moments increased. Muscular cocontraction was present both early and late in learning and did not appear to decrease with learning. EMG variability decreased with learning, for only two of the seven muscles monitored. Since subjects learned to produce relatively stereotypic motor patterns, these data appear to support motor-programming theory at the level of net muscle moments; however, at the level of neural commands, as represented by muscle activation patterns, motor-programming appears to be unsupported. Motor equivalence, presumably, would have predicted that kinematic and net-muscle-moment variance would be independent of learning, and that the movement goal would be achieved in a variety of fashions. Suggestions are made as to how a motor program could emerge or be constructed during movement acquisition.

ANALYSIS, OPTIMIZATION, AND MECHANISTIC MODELLING OF ELECTROCHEMICAL SURFACE GRINDING (ECG) PROCESS (GRINDING)

    The effects of the ECG process parameters have shown that certain machining conditions cause the short-circuiting and anodic passivity which significantly affect the ECG process performance, leading to an increase in the mechanical action. Based on the results and statistical analysis of the data from the experimental studies, an off-line optimization methodology has been achieved for the ECG process. This optimization technique employs

several process variables to simultaneously optimize wheel wear, surface finish, spindle load, volumetric metal removal rate, bottom overcut depth, and side overcut width. The results indicate that a **balance** between mechanical and electrochemical actions has been achieved and the trade-off between the ECG process responses was minimized. To achieve a more realistic approach for modelling the ECG process, a mechanistic model has been developed to overcome the difficulties that exist with the theoretical calculations. ECG geometry and kinematics are analyzed and the mechanistic behaviour of the ECG process is explained with respect to three different cutting dynamics. Also, a parameter design approach has been utilized to minimize the variations in bottom overcut depth while keeping its mean **close** to a **predetermined** target value. Parameter design technique provides a guide for ECG users to select proper levels for the parameters.

The mechanistic behaviour of the ECG process is explained with respect to three different cutting dynamics. In steady state cutting conditions, it has been shown that mechanical forces are observed on the wheel peripheral contact length between the initial contact point of the ECG wheel and the end point of the wheel-workpiece contact. This leads to two different wheel peripheral contact areas and each of these areas shows separate mechanistic behaviour. The depth of cut for combined mechanical and electrochemical actions has been used as a tool to calculate the mechanical and electrochemical volumetric metal removal rates without considering them independently.

16/5/6   (Item 6 from file: 35)

1060312 ORDER NO: AAD89-01994
THE BALANCE OF AGENCY AND COMMUNION: ADJUSTMENT AND ADAPTATION IN SINGLE PARENTS
   Author: MALLEY, JANET ELIZABETH
   Degree: PH.D.
   Year: 1989
   Corporate Source/Institution: BOSTON UNIVERSITY (0017)
   MAJOR PROFESSOR: ABIGAIL J. STEWART
   Source: VOLUME 50/02-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
            PAGE 778. 209 PAGES
   Descriptors: PSYCHOLOGY, PERSONALITY; SOCIOLOGY, INDIVIDUAL AND FAMILY
                 STUDIES
   Descriptor Codes: 0625; 0628

Following Bakan's (1966) argument that agency (mastery and competence), unmitigated by communion (connected relationships), results in illness, this study examined the implications for the individual of a balanced presence of agency and communion. Agency and communion were considered on two levels: in terms of individual, intra-psychic needs and as experienced in the daily enactment of social roles. It was expected that balanced needs (as an expression of psychological development and maturity) would be related to positive long-term adjustment, while balanced experiences (as a reflection of daily life) would be associated with positive short-term adjustment. Several moderator variables were also investigated: gender, individual differences in needs for agency and communion, and quality of agentic and communal experiences (direct and beneficial or indirect and less beneficial).

Analysis of data from a sample of 99 recently separated custodial mothers revealed that those mothers who expressed, over time, **balanced** needs (measured from TATs) for agency and communion scored highest in ego development (measured by the Washington University Sentence Completion Test). Equally, mothers with **balanced** experiences of agency and communion (**coded** from open- **ended** interview responses) scored lowest on a modified version of Gurin, Veroff, & Feld's (1960) stress symptoms measure. Both **balanced** experience of the indirect forms of agency and communion, and individual differences in expressed needs, moderated this relationship. Analysis of a much smaller, more heterogeneous sample of separated fathers

produced no significant results.

Levels and quality of experience of agency and communion were also assessed for men and women in various role relationships. Some roles were found to foster one form of experience over another or tend toward a particular quality of agentic or communal expression. Some differences were also found between men and women in the experience of particular roles.

16/5/7   (Item 7 from file: 35)

846014   ORDER NO: AAD84-14604
INSIDE A COMMUNITY COLLEGE BASIC SKILLS CLASS: A CASE STUDY (STUDY, DROP OUTS, ADULT LEARNERS)
   Author: GARSTKA, PAULINE ANN
   Degree: ED.D.
   Year: 1984
   Corporate Source/Institution: PEPPERDINE UNIVERSITY (6009)
   Source: VOLUME 45/03-A OF DISSERTATION ABSTRACTS INTERNATIONAL.
            PAGE 732.   166 PAGES
   Descriptors: EDUCATION, COMMUNITY COLLEGE
   Descriptor Codes: 0275

      Statement of the Problem. This study had a threefold specific purpose: the collection of qualitative data about community college basic skills students and classroom environment; analysis of data to determine if they supported or negated leading researchers' identification of students' characteristics and behaviors; and formulation of hypotheses for further research.
      Procedure. During fall, 1981, a case study was conducted of an evening English Reading and Writing Basic Skills class. Qualitative research methods were used to conduct the study and the process consisted of three stages. During the entry stage, arrangements, for and actual entry into the field occurred. During the data gathering stage, the following ethnographic research techniques were used to collect the data: participant observation, taking field notes, interviewing, and examining **records** . During the **closing** stage, the data were organized, **coded** , analyzed, and interpreted. Hypotheses were formulated.
      Findings. The research indicated that basic skills students in this class had the following characteristics. Students worked full-time and enrolled in school part-time to improve their English and their employment skills. They possessed poor study skills and experienced little previous academic success. They responded to group learning activities that involved them in discussion. They did not place a high priority on course completion and two-thirds of them dropped out for four basic reasons: class too hard, reasons related to job, illness and personal problems. This research supported the findings reported by other researchers.
      The following hypotheses were formulated about basic skills students. (1) Students will be more successful in class and less prone to drop if they receive prior instruction in study skills and training in self-directed learning. (2) Students will be more successful in reaching their academic goals if they are in classrooms that immediately establish an accepting and supportive environment, that allow them to be involved in self-diagnosis of their learning needs, and that allow them to participate in planning their own learning activities. (3) Students will be more responsive to learning activities that involve them in group discussion and employ visual aids. (4) Students will place a higher priority on course completion if they are involved in making decisions about their own learning.

16/5/8   (Item 8 from file: 35)

812639 ORDER NO: AAD83-13013
PSEUDORECURSIVE VARIETIES AND THEIR IMPLICATIONS FOR WORD PROBLEMS
  Author: WELLS, BENJAMIN FRANKLIN, III
  Degree: PH.D.
  Year: 1982
  Corporate Source/Institution: UNIVERSITY OF CALIFORNIA, BERKELEY (0028)
  Source: VOLUME 44/01-B OF DISSERTATION ABSTRACTS INTERNATIONAL.
           PAGE 198. 246 PAGES
  Descriptors: MATHEMATICS
  Descriptor Codes: 0405

     A set of universal equations (identities) using operation symbols
appropriate to a fixed finitary similarity type is called an equational
theory if it is closed under consequence. The class of algebras that are
models for all the sentences in the theory is called a variety. Such a
theory is always considered countable since only countably many variables
are required. It may be recursive (or "decidable"), as in the case of the
variety of all commutative semigroups, or nonrecursive ("undecidable"), as
in the case of relation algebras. An intermediate position would be held by
the pseudorecursive variety, whose theory is nonrecursive, but for every n
set of equations in the theory with n variables is recursive. Informal
reasoning suggests any variety with the later property is decidable, but
pseudorecursive varieties are shown here to exist in abundance, even with
strict logical and algebraic limitations. Their existence urges that
language be used precisely, but also raises questions on the usual
identification of decidability with recursiveness.
     The first goal is to construct finitely axiomatizable
pseudorecursive equational theories. The major tool is a Turing machine
that **records** its own behavior and periodically reviews this history for
accuracy. The machine's action is **coded** so **closely** in a theory of
square-zero semigroups, that the n-variable parts correspond to bounded
machine action and are thus recursive, but the entire theory matches the
machine's unfettered operation, chosen to be nonrecursive.
     In the language of recursive functions, one would say that the
n-variable parts of a pseudorecursive theory are recursive, but not
uniformly in the number of variables. Similar issues arise with word
problems: for a fixed quasi-variety determined by conditional equations,
one can ask whether the word problems for its finitely presented algebras
are uniformly solvable in the number of generators, or of defining
relations, or of both. The methods above extend to give examples of the
independence of these types of uniformity. Also constructed is a finitely
presented square-zero semigroup with unsolvable word problem, but its local
word problem obtained by fixing one of the two words is recursive for every
word fixed.
     Inspired by ambiguities in the literature, these results spotlight
areas where formal logic must be honored (even in informal mathematics) and
one must proceed in a technically exact fashion.

 16/5/9   (Item 9 from file: 35)
DIALOG(R)File 35:Dissertation Abs Online
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764824 ORDER NO: AAD81-29099
**APPLE NOSES AND POPSICLE TOESES: A DEVELOPMENTAL INVESTIGATION OF
METAPHORICAL COMPREHENSION**
  Author: SILTANEN, SUSAN ANN
  Degree: PH.D.
  Year: 1981
  Corporate Source/Institution: THE OHIO STATE UNIVERSITY (0168)
  Source: VOLUME 42/07-A OF DISSERTATION ABSTRACTS INTERNATIONAL.
           PAGE 2933. 281 PAGES
  Descriptors: SPEECH
  Descriptor Codes: 0459

Numerous language scholars have argued that most of the current language comprehension series are incomplete and inadequate because they do not seem to be able to **account** for how non-literal language is understood. These scholars have called for a comprehensive theory of language processing that can **account** for both literal and non-literal meaning. Accordingly, this study attempted to make a contribution to the construction of a comprehensive theory of language processing by identifying significant differences in adult's and children's metaphorical comprehension abilities. Metaphorical comprehension was chosen because it is unique and different from other forms of non-literal language in that the literal meanings of the words are necessary but not sufficient for understanding a metaphor. A developmental theory of metaphorical comprehension and five hypotheses were generated. Two hundred and forty six subjects from 3 to 31-years-old were given a 16-item metaphorical comprehension test. The test metaphors varied in difficulty and were presented in a story context. After hearing or reading the story, subjects were asked, "What does it mean to say   ?" Their open- **ended** responses were **coded** either: no comprehension, literal, perceptually based, conceptually based, or perceptually-conceptually based metaphorical comprehension based on the type of grounds indicated. The hypotheses were generally supported: the 5-year-olds comprehended the easy metaphors providing perceptually based similarities; the 6-8-year-olds comprehended the easy and some moderate metaphors providing primarily perceptually based grounds; the 9-11-year-olds comprehended the easy, moderate, and some difficult metaphors providing perceptually and some conceptually based grounds; and the 12 years plus subjects comprehended easy, moderate, and difficult metaphors providing some perceptually and more conceptually based grounds. The results were discussed in terms of the types of intersecting categories.

 16/5/10   (Item 1 from file: 583)
DIALOG(R)File 583:Gale Group Globalbase(TM)
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04266357
IBM CLOSES OFFICES FOR A WEEK
  US - IBM CLOSES OFFICES FOR A WEEK
Wall Street Journal Europe (WSJ)   11 May 1991 p3

IBM has made an internal announcement that its headquarters offices in the New York area will close for the 4 July week in 1991, as a cost-cutting measure. Some 18k staff of a total US workforce of 200k staff are affected. Offices which deal with the public will not **close** . The firm has also **instructed**   its US employees to take vacation days owing to them, which they have previously been allowed to defer in favour of a lump sum on retirement. Staff will be restricted to 10 days deferred vacation. This will help the IBM **balance** sheet, since the firm will no longer need to keep a reserve to cover vacation costs.

PRODUCT: Mainframe Computers (3573MF); Microcomputers (3573MI);
    Minicomputers (3573MN);
EVENT: COMPANIES ACTIVITIES (10);
COUNTRY: United States (1USA); NATO Countries (420); South East Asia
    Treaty Organisation (913);

 16/5/11   (Item 1 from file: 2)
DIALOG(R)File   2:INSPEC
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7144778   INSPEC Abstract Number: B2002-02-6135C-048, C2002-02-5260B-159
   Title: **Closed loop optimization of image coding using subjective error
criteria**

Author(s): Etoh, M.; Kobayashi, M.; Adachi, S.
Author Affiliation: Multimedia Labs., NTT DoCoMo Inc., Kanagawa, Japan
Abstract: This paper proposes a closed-loop optimization framework to improve image coding efficiency by searching DCT coefficients at the equivalent subjective quality to the original coding result. The proposed framework shares a basic idea currently adopted in speech coding that searches optimal codes in a **closed** -loop operation, evaluating the **coded** signal with perceptually weighted mean square error. To evaluate the perceptual quality in image coding, we introduce the masked PSNR that **accounts** for the masking effects, by which we apply the stepwise removal of subjectively negligible DCT coefficients. The result justifies the effectiveness of the proposed framework. (12 Refs)
Subfile: B C
Descriptors: closed loop systems; data compression; discrete cosine transforms; image coding; mean square error methods; optimisation; transform coding
Identifiers: closed loop optimization; image coding; subjective error criteria; DCT coefficients; subjective quality; speech coding; optimal codes; coded signal; perceptually weighted mean square error; perceptual quality; masked PSNR; masking effects
Class Codes: B6135C (Image and video coding); B0290X (Integral transforms in numerical analysis); B0290F (Interpolation and function approximation (numerical analysis)); B0260 (Optimisation techniques); C5260B (Computer vision and image processing techniques); C4188 (Integral transforms in numerical analysis); C4130 (Interpolation and function approximation (numerical analysis)); C1180 (Optimisation techniques)

 16/5/12   (Item 2 from file: 2)
 Title: Soft output Viterbi algorithm (SOVA) for non-binary turbo codes
Author(s): Jun Tan; Stuber, G.L.
Author Affiliation: Dept. of Electr. & Comput. Eng., Georgia Inst. of Technol., Atlanta, GA, USA
Abstract: An optimal MAP-equivalent SOVA decoding algorithm and its

simplified suboptimal algorithm for non-binary codes are proposed. The implementation of its suboptimal algorithm is simpler, while its performance is very close to the optimal **Log** -MAP algorithm. The proposed SOVA can be used as a decoder for turbo trellis **coded** modulation (TTCM). It is **concluded** that the proposed SOVA performs very close to the **Log** -MAP algorithm for both the TTCM and binary turbo codes, and its performance is better than the conventional SOVA. (4 Refs)

Subfile: B

Descriptors: iterative decoding; trellis coded modulation; turbo codes; Viterbi decoding

Identifiers: soft output Viterbi algorithm; nonbinary turbo codes; MAP-equivalent SOVA decoding algorithm; optimal algorithm; suboptimal algorithm; turbo trellis coded modulation; Log-MAP algorithm; binary turbo codes

Class Codes: B6120B (Codes)

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16/5/13   (Item 3 from file: 2)
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6681079   INSPEC Abstract Number: C2000-10-1290P-002

Title: The nature and processing of errors in interactive behavior

Author(s): Gray, W.D.
Author Affiliation: George Mason Univ., Fairfax, VA, USA

Abstract: Understanding the nature of errors in a simple, rule-based task-programming a VCR-required analyzing the interactions among human cognition, the artifact, and the task. This analysis was guided by least-effort principles and yielded a control structure that combined a rule hierarchy task-to-device with display-based difference-reduction. A model based on this analysis was used to trace action protocols collected from participants as they **programmed** a simulated VCR. Trials that **ended** without success were interrogated to yield insights regarding problems in acquiring the control structure. For successful trials, steps that the model would make were categorized as matches to the model; steps that the model would not make were violations of the model. The model was able to trace the vast majority of correct keystrokes and yielded a business-as-usual **account** of the detection and correction of errors. Violations of the model fell into one of two fundamental categories. The model provided insights into certain subcategories of errors; whereas, regularities within other subcategories of error suggested limitations to the model. Although errors were rare when compared to the total number of correct actions, they were important. Errors were made on 4% of the keypresses that, if not detected, would have prevented two-thirds of the shows from being successfully recorded. A misprogrammed show is a minor annoyance to the user. However, devices with the approximate complexity of a VCR are ubiquitous and have found their way into emergency rooms, airplane cockpits, power plants, and so on. Errors of ignorance may be reduced by training; however, errors in the routine performance of skilled users can only be reduced by design. (55 Refs)

Subfile: C

Descriptors: man-machine systems; psychology

Identifiers: interactive behavior; simple rule-based task; VCR programming; least-effort principles; display-based difference-reduction; action protocols; correct keystrokes; emergency rooms; airplane cockpits; power plants; errors of ignorance; routine performance; skilled users

Class Codes: C1290P (Systems theory applications in social science and

politics); C1270 (Man-machine systems); C7810 (Social and behavioural sciences computing)

16/5/14   (Item 4 from file: 2)

6600902   INSPEC Abstract Number: C2000-07-6110L-002
 Title: **An abductive event calculus planner**
  Author(s): Shanahan, M.
  Author Affiliation: Dept. of Electr. & Electron. Eng., Imperial Coll. of Sci., Technol. & Med., London, UK
  Journal: Journal of Logic Programming   vol.44, no.1-3   p.207-39
  Publisher: Elsevier,
  Publication Date: July-Aug. 2000   Country of Publication: USA
  CODEN: JLPRE2   ISSN: 0743-1066
  SICI: 0743-1066(200007/08)44:1/3L.207:AECP;1-I
  Material Identity Number: H699-2000-005
  U.S. Copyright Clearance Center Code: 0743-1066/2000/$20.00
  Document Number: S0743-1066(99)00077-1
  Language: English   Document Type: Journal Paper (JP)
  Treatment: Practical (P); Theoretical (T)
  Abstract: Previously, C. Green (1969) presented his seminal description of planning as theorem proving with the situation calculus. The most pleasing feature of Green's **account** was the negligible gap between high-level logical specification and practical implementation. The paper attempts to reinstate the ideal of planning via theorem proving in a modern guise. In particular, the paper shows that if we adopt the event calculus as our logical formalism and employ abductive logic programming as our theorem proving technique, then the computation performed, **closely** mirrors that of a hand- **coded** partial-order planning algorithm. Soundness and completeness results for this logic programming implementation are given. Finally the paper shows that if we extend the event calculus in a natural way to accommodate compound actions, then using the same abductive theorem proving techniques we can obtain a hierarchical planner. (28 Refs)
  Subfile: C
  Descriptors: inference mechanisms; logic programming; planning (artificial intelligence); temporal logic; theorem proving
  Identifiers: abductive event calculus planner; situation calculus; high-level logical specification; practical implementation; event calculus; logical formalism; abductive logic programming; hand-coded partial-order planning algorithm; completeness results; logic programming implementation; compound actions; abductive theorem proving techniques; hierarchical planner
  Class Codes: C6110L (Logic programming); C4210 (Formal logic); C4240L (Logic programming theory); C6170K (Knowledge engineering techniques)

16/5/15   (Item 5 from file: 2)

6483312   INSPEC Abstract Number: A2000-05-8770J-002, B2000-03-7520E-001, C2000-03-3385C-001
 Title: **Controlling FES-assisted paraplegic standing-a case study**
  Author(s): Wood, D.E.; Dunkerley, A.L.
  Author Affiliation: Dept. of Med. Phys. & Biomed. Eng., Salisbury District Hosp., UK
  Conference Title: Proceedings of the First Joint BMES/EMBS Conference. 1999 IEEE Engineering in Medicine and Biology 21st Annual Conference and the 1999 Annual Fall Meeting of the Biomedical Engineering Society (Cat. No.99CH37015)   Part vol.1   p.602 vol.1
  Publisher: IEEE, Piscataway, NJ, USA

Publication Date: 1999   Country of Publication: USA   2 vol. vi+1345 pp.
ISBN: 0 7803 5674 8   Material Identity Number: XX-1999-03127
U.S. Copyright Clearance Center Code: 0 7803 5674 8/99/$10.00
Conference Title: Proceedings of the First Joint BMES/EMBS Conference
Conference Sponsor: Medtronic; Johnson & Johnson; Baxter Cardio Vascular
Group; Becton Dickinson & Co.; Georgia Biomed. Partnership; Guidant Found.;
Kilpatrick Stockton LLP; King & Spaulding; Troutman Sanders LLP; Adv.
Tissue Sci.; AVL Biosense Corp.; CUH2A; Ernst & Young LLP; State of Georgia
; Dept. Ind.; Trade & Tourism; Healthdyne Companies; Long Aldrige & Norman;
Porex Corp.; Sulzer Innotec; Turner Constr. Company
Conference Date: 13-16 Oct. 1999   Conference Location: Atlanta, GA, USA
Language: English   Document Type: Conference Paper (PA)
Treatment: Practical (P); Experimental (X)

Abstract: Using electrical stimulation of lower limb muscles to assist
paraplegics to stand has many advantages over conventional passive standing
techniques. However, stability and **balance** needs to be maintained, in
response to muscle spasms and fatigue, postural changes and external
perturbations, if the system is to be safe for a subject to take one hand
off to perform tasks. The authors' system monitors the stand by measuring
the knee angles and uses a closed-loop design, based on a PID
(proportional-integral-derivative) type, to respond to deviations by
adjusting the stimulation to the quadriceps. With this system the authors
have stood 24 paraplegics, with 14 using it at home. The authors report
their experience from one of their subjects who started retraining his
quadriceps with electrical stimulation in October 1998 and first stood
three months later. During sessions over the next three months, he was
 instructed in standing techniques and the **closed** -loop algorithm was
implemented. The authors found that during standing, if the stimulation
increased too quickly then strong stomach spasms resulted. This was
improved by removing the controller's derivative term and low-level
stimulation of the abdominal muscles as a daily exercise routine. (1 Refs)
Subfile: A B C
Descriptors: biocontrol; bioelectric phenomena; biomechanics; closed loop
systems; mechanical stability; neuromuscular stimulation; three-term
control
Identifiers: FES-assisted paraplegic standing control; lower limb muscles
; electrical stimulation; conventional passive standing techniques;
biomechanical stability; balance; muscle spasms; fatigue; postural changes;
external perturbations; 3 month
Class Codes: A8770J (Prosthetics and other practical applications);
A8730C (Electrical activity in neurophysiological processes); A8730E (
External and internal data communications, nerve conduction and synaptic
transmission); A8745D (Physics of body movements); B7520E (Prosthetics and
orthotics); C3385C (Prosthetic and orthotic control systems)
Numerical Indexing: time 7.9E+06 s

16/5/16   (Item 6 from file: 2)
DIALOG(R)File   2:INSPEC

6469423   INSPEC Abstract Number: A2000-04-0540-011
 Title: Computer simulation of random packing of unequal particles
Author(s): He, D.; Ekere, N.N.; Cai, L.
Author Affiliation: Dept. of Aeronaut., Mech., & Manuf. Eng., Salford
Univ., UK
Journal: Physical Review E (Statistical Physics, Plasmas, Fluids, and
Related Interdisciplinary Topics)   vol.60, no.6, pt.A-B   p.7098-104
Publisher: APS through AIP,
Publication Date: Dec. 1999 Country of Publication: USA
CODEN: PLEEE8 ISSN: 1063-651X
SICI: 1063-651X(199912)60:6:ABL.7098:CSRP;1-K
Material Identity Number: A367-1999-012
U.S. Copyright Clearance Center Code: 1063-651X/99/60(6)/7098(7)/$15.00
Document Number: S1063-651X(99)02312-0

Language: English   Document Type: Journal Paper (JP)
Treatment: Theoretical (T)

Abstract: A Monte Carlo simulation model for the random packing of unequal spherical particles is presented in this paper. With this model, the particle radii obeying a given distribution are generated and randomly placed within a cubic packing domain with high packing density and many overlaps. Then a relaxation iteration is applied to reduce or eliminate the overlaps, while the packing space is gradually expanded. The simulation is completed once the mean overlap value falls below a **preset** value. To simulate the random **close** packing, a "vibration" process is applied after the relaxation iteration. For **log** -normal distributed particles, the effect of particle size standard deviation, and for bidisperse particles, the effects of particle size ratio and the volume fraction of large particles on packing density and on coordination number are investigated. Simulation results show good agreement with that obtained by experiments and by other simulations. The randomness, homogeneity, and isotropy, which have not been evaluated before for packing of distributed particles, are also examined using statistical measures. (35 Refs)
Subfile: A
Descriptors: digital simulation; iterative methods; Monte Carlo methods; particle size; random processes
Identifiers: computer simulation; random packing; unequal particles; random packing model; Monte Carlo method; particle radii; cubic packing domain; packing density; overlaps; relaxation iteration; packing space; random close packing; vibration process; log-normal distributed particles; bidisperse particles; randomness; homogeneity; isotropy; statistical measures; distributed particles
Class Codes: A0540 (Fluctuation phenomena, random processes, and Brownian motion); A0250 (Probability theory, stochastic processes, and statistics); A6185 (Modelling and computer simulation of solid structure)

16/5/17   (Item 7 from file: 2)

5901487   INSPEC Abstract Number: B9806-0240Z-006, C9806-1140Z-007
 Title: **The greedy search algorithm on binary vectors**
Author(s): Dor, A.
Author Affiliation: Negev Coll., Israel
Language: English   Document Type: Journal Paper (JP)
Treatment: Practical (P); Theoretical (T)
Abstract: Consider the n-dimensional binary space with some (general) probability distribution. Suppose that a random vector is sampled from this space and it is initially unseen. A search algorithm on such a vector is a procedure inspecting one coordinate at a time in a **predetermined** order. It **terminates** when a 1-coordinate is found or when all the coordinates were tested and were found to be 0. A greedy search algorithm is one that goes at each stage to the next coordinate most likely to be 1, taking into **account** the findings of the previous examinations and the distribution. Its expectation is compared with that of an optimal search, which is a search that has a minimal expectation. (10 Refs)
Subfile: B C
Descriptors: probability; search problems
Identifiers: greedy search algorithm; binary vectors; n-dimensional binary space; probability distribution; random vector; optimal search
Class Codes: B0240Z (Other topics in statistics); C1140Z (Other topics in statistics); C1180 (Optimisation techniques); C1230 (Artificial

intelligence)

  16/5/18   (Item 8 from file: 2)

5816453   INSPEC Abstract Number: C9803-6110L-007
 Title: Event calculus planning revisited
   Author(s): Shanahan, M.
   Author Affiliation: Dept. of Comput. Sci., Queen Mary & Westfield Coll.,
London, UK
   Conference Title: Recent Advances in AI Planning. 4th European Conference
on Planning, ECP'97 Proceedings   p.390-402
   Editor(s): Steel, S.; Alami, R.
   Publisher: Springer-Verlag, Berlin, Germany
   Publication Date: 1997 Country of Publication: Germany   ix+454 pp.
   ISBN: 3 540 63912 8   Material Identity Number: XX97-03305
   Conference Title: Recent Advances in AI Planning. 4th European Conference
on Planning, ECP'97
   Conference Date: 24-26 Sept. 1997   Conference Location: Toulouse,
France
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Theoretical (T)
   Abstract: In 1969 Cordell Green presented his seminal description of
planning as theorem proving with the situation calculus. The most pleasing
feature of Green's **account** was the negligible gap between high-level
logical specification and practical implementation. This paper attempts to
reinstate the ideal of planning via theorem proving in a modern guise. In
particular, the author shows that if we adopt the event calculus as our
logical formalism and employ abductive logic programming as our theorem
proving technique, then the computation performed mirrors **closely** that of
a hand- **coded** partial order planning algorithm. Furthermore, if we extend
the event calculus in a natural way to accommodate compound actions, then
using exactly the same abductive theorem prover we obtain a hierarchical
planner. All this is a striking vindication of Kowalski's (1979) slogan
"Algorithm=logic+control". (15 Refs)
   Subfile: C
   Descriptors: formal specification; logic programming; planning
(artificial intelligence); theorem proving
   Identifiers: event calculus planning; theorem proving; logical
specification; logical formalism; abductive logic programming
   Class Codes: C6110L (Logic programming); C4210 (Formal logic); C1230 (
Artificial intelligence)

  16/5/19   (Item 9 from file: 2)

5561752   INSPEC Abstract Number: B9706-6420D-001
 Title: BS Wide-CTV receiver with simple channel preset C-2825
   Author(s): Miyamoto, T.; Ogawa, K.; Noguchi, T.; Suzuki, K.; Yokozawa, M.
; Sunagare, H.
   Author Affiliation: NEC Home Electron. Ltd., Japan
   Journal: NEC Technical Journal   vol.50, no.2   p.20-5
   Publisher: NEC,
   Publication Date: Feb. 1997 Country of Publication: Japan
   CODEN: NECGEZ ISSN: 0285-4139
   SICI: 0285-4139(199702)50:2L.20:WRWS;1-R
   Material Identity Number: H719-97006
   Language: Japanese   Document Type: Journal Paper (JP)
   Treatment: Practical (P); Product Review (R)
   Abstract: NEC has developed the 28" Wide-CTV receiver (model: C-28ZS)

with a BS tuner and plug-in type ghost reduction unit. The receiver attaches great importance to the **balance** of its functions, performance and price, centering on easy operation ("the simple channel **preset CLOSE**", "the simple picture control"), high-quality picture ("the pure black CRT", "dynamic gamma correction") and clean ("antibacterial remote control hand-held unit"). (0 Refs)
   Subfile: B
   Descriptors: direct broadcasting by satellite; television receivers; tuning
   Identifiers: BS Wide-CTV receiver; C-2825 channel preset; BS tuner; plug-in type ghost reduction unit; performance; price; picture control; high-quality picture; pure black CRT; dynamic gamma correction; antibacterial remote control hand-held unit; 28 inch
   Class Codes: B6420D (Radio and television receivers)
   Numerical Indexing: size 7.1E-01 m
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   16/5/20   (Item 10 from file: 2)
DIALOG(R)File   2:INSPEC
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04297420   INSPEC Abstract Number: C9301-4260-032
   Title: **Dynamic closest pairs-a probabilistic approach**
   Author(s): Golin, M.J.
   Author Affiliation: INRIA Rocquencourt, Le Chesnay, France
   Conference Title: Algorithm Theory - SWAT '92. Third Scandinavian Workshop Proceedings   p.340-51
   Editor(s): Nurmi, O.; Ukkonen, E.
   Publisher: Springer-Verlag, Berlin, Germany
   Publication Date: 1992 Country of Publication: West Germany   viii+433 pp.
   ISBN: 3 540 55706 7
   Conference Date: 8-10 July 1992   Conference Location: Helsinki, Finland
   Language: English   Document Type: Conference Paper (PA)
   Treatment: Theoretical (T)
   Abstract: The dynamic closest pair problem is to find the closest pair among a set of points that is continuously being changed by insertions and deletions. The author presents a simple, robust, easily **coded** heuristic for solving the planar **closest** pair problem. The author proves that this heuristic uses only O(**log** n) expected time to perform an insertion or deletion when the input points are chosen from a very wide class of distributions in the plane.   (15 Refs)
   Subfile: C
   Descriptors: computational geometry
   Identifiers: probabilistic approach; dynamic closest pair problem; insertions; deletions; easily coded heuristic
   Class Codes: C4260 (Computational geometry)

   16/5/21   (Item 11 from file: 2)
DIALOG(R)File   2:INSPEC
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04011405   INSPEC Abstract Number: B91069907, C91068637
   Title: **Automatic frequency control in chemical etching of quartz crystal blanks**
   Author(s): Sauerland, F.L.
   Author Affiliation: Transat Corp., Solon, OH, USA
   Conference Title: Proceedings of the 44th Annual Symposium on Frequency Control 1990 (Cat. No.90CH2818-3)   p.246-50
   Publisher: IEEE, New York, NY, USA
   Publication Date: 1990 Country of Publication: USA   ix+640 pp.
   U.S. Copyright Clearance Center Code: CH2818-3/90/0000-0246$01.00
   Conference Sponsor: IEEE; U.S. Army Electron. Technol. & Devices Lab
   Conference Date: 23-25 May 1990   Conference Location: Baltimore, MD,

USA
Abstract: A method and system for measuring the resonance frequency of piezoelectric resonators in conductive fluids are described. One of its applications is in the chemical etching of quartz crystal blanks, where it can be used to monitor and control either the etch rate of the etchant or the etching of blanks to a targeted thickness or frequency. The system is composed of a crystal etch monitor in conjunction with special electrodes that are designed to take **account** and advantage of the conductive nature of the etchant. It can etch a load of blanks or a monitor blank different from the etch load but immersed in the same etchant. When the blank reaches a **predetermined** target, an etch-**termination** signal is triggered that can be used to alert an operator or to initiate action for automatic etch termination. (4 Refs)
Subfile: B C B
Descriptors: automatic frequency control; crystal resonators; etching; frequency measurement; process control; quartz
Identifiers: AFC; automatic frequency control; resonant frequency monitoring; chemical etching; quartz crystal blanks; piezoelectric resonators; conductive fluids; etch rate; etching of blanks; targeted thickness; crystal etch monitor; special electrodes; etch-termination signal; automatic etch termination; SiO/sub 2/ crystal resonators
Class Codes: B2860 (Piezoelectric and ferroelectric devices); B7310G (Frequency); C3110G (Frequency); C3355C (Machining processes and machine tools); B0170E (Production facilities and engineering)
Chemical Indexing:
SiO2 bin - O2 bin - Si bin - O bin (Elements - 2)

16/5/22   (Item 12 from file: 2)

03982135   INSPEC Abstract Number: C91062071
Title: **Type inference for record concatenation and multiple inheritance**
Author(s): Wand, M.
Author Affiliation: Coll. of Comput. Sci., Northeastern Univ., Boston, MA, USA
Abstract: The author shows that the type inference problem for a lambda calculus with **records** , including a **record** concatenation operator, is decidable. It is shown that this calculus does not have principal types, but does have finite complete sets of types: that is, for any term M in the calculus, there exists an effectively generable finite set of type schemes such that every typing for M is an instance of one of the schemes in the set. It is shown how a simple model of object-oriented programming, including hidden instance variables and multiple inheritance, may be **coded** in this calculus. It is **concluded** that type inference is decidable for object-oriented programs, even with multiple inheritance and classes as first-class values. (18 Refs)
Subfile: C
Descriptors: decidability; inference mechanisms; object-oriented programming
Identifiers: type inference; record concatenation; multiple inheritance; lambda calculus; records; decidable; finite complete sets; object-oriented programming; hidden instance variables; multiple inheritance
Class Codes: C1230 (Artificial intelligence); C6110 (Systems analysis and programming); C4210 (Formal logic)

03403017   INSPEC Abstract Number: C89043440
 Title: **A load control mechanism for data-flow machines**
  Author(s): Takesue, M.
  Author Affiliation: NTT Electr. Commun. Labs., Musashino, Japan
  Journal: Systems and Computers in Japan   vol.19, no.10   p.55-69
  Publication Date: Oct. 1988   Country of Publication: USA
  CODEN: SCJAEP ISSN: 0882-1666
  U.S. Copyright Clearance Center Code: 0882-1666/88/0010-0055$7.50/0
  Language: English   Document Type: Journal Paper (JP)
  Treatment: Theoretical (T)
  Abstract: The data-flow computer is based essentially on parallel
computation. Consequently, it is essential in the realization of such
high-level management and control functions as resource management to
control the parallelism and parallel expansion. In the first part of the
paper, the state and the transition are defined for the process in the
dataflow computer, and the method for detecting the number of active state
processes N/sub a/ is discussed. Then a load control method is proposed
whereby the processes are executed via the depth-first approach while
maintaining N/sub a/ **close** to the **predetermined** threshold N/sub t/. The
compatibility between the load control and the load **balancing** is
discussed. (9 Refs)
  Subfile: C
  Descriptors: parallel machines; scheduling
  Identifiers: register transfer level; breadth parallelism; load control
mechanism; data-flow machines; data-flow computer; parallel computation;
state; transition; active state processes; depth-first approach; load
balancing
  Class Codes: C6150J (Operating systems)

00699698   INSPEC Abstract Number: A74074796, B74040332
 Title: **Physics problems of thermonuclear reactors**
  Author(s): Ribe, F.L.
  Author Affiliation: Univ. California, Los Alamos, NM, USA
  Journal: AIP Conference Proceedings   no.19   p.337-56
  Publication Date: 1974 Country of Publication: USA
  CODEN: APCPCS ISSN: 0094-243X
  Conference Title: Physics and the Energy Problem 1974
  Conference Sponsor: AIP
  Conference Date: 4-7 Feb. 1974   Conference Location: Chicago, IL, USA
  Language: English   Document Type: Conference Paper (PA); Journal Paper
(JP)
  Treatment: General, Review (G)
  Abstract: In thermonuclear reactors with plasma confinement approaching
the ideal limit, the stability of burn (in toroidal systems) following
ignition is determined by the **balance** between radiation and diffusion
losses and alpha-particle energy transfer. Tokamak systems with injection
regulation and stabilized steady-state burn conditions, theta-pinch
unstable systems with **programmed** decompression quenching, and an open-
ended   magnetic mirror system with direct conversion for recovering
end-loss plasma energy, are described. (11 Refs)
  Subfile: A
  Descriptors: fusion reactors; pinch effect; plasma confinement; Tokamak
devices
  Identifiers: thermonuclear reactors; plasma confinement; stability of
burn; diffusion losses; Tokamak systems; injection regulation; programmed
decompression quenching; direct conversion; radiation losses; alpha
particle energy transfer; theta pinch unstable systems; open ended magnetic

mirror system; end loss plasma energy
   Class Codes: A2852 (Fusion reactors); A5255E (Pinch effect and pinch
machines)

   16/5/25   (Item 15 from file: 2)

00312999   INSPEC Abstract Number: C71022311
 Title: Selector channel for a communications pre-processor
   Author(s): Annuziata, E.J.; Bob, F., Jr.; Cudney, L.F.; Seeland, J.J.,
Jr.
   Journal: IBM Technical Disclosure Bulletin   vol.14, no.1   p.212-13
   Publication Date: June 1971 Country of Publication: USA
   CODEN: IBMTAA ISSN: 0018-8689
   Language: English   Document Type: Journal Paper (JP)
   Treatment: Applications (A); Practical (P)
   Abstract: The selector channel described has a **programmed** facility to
permit an early **termination** of an I/O operation in the event that a Data
Check (Bad Parity on Data) is encountered. Present IBM System/360 channels
require that a channel maintain the data transfer operation to the end of
the **record** before the 'Data Check' condition can be signalled. This
selector channel also has a programmed inventory control device called
Block Mode. Block Mode is program compatible with System/360 and has the
unique ability to execute Data Chaining and Block Mode operations together
under CCW count control.
   Subfile: C
   Descriptors: data communication equipment; program processors
   Identifiers: communication pre processor; communication processor;
channel to channel adapter; selector channel; programmed facility; early
termination of an I/O operation; data check; bad parity on data; IBM
System/360 channels; data transfer operation; host processor; retry;
channel command word; programmed inventory control device; Block Mode;
program compatible; CCW count control
   Class Codes: C5600 (Data communication equipment and techniques)

   16/5/26   (Item 16 from file: 2)

00224281   INSPEC Abstract Number: A71013617
 Title: A timer and event accumulator for the FIM atom probe
   Author(s): Johnson, C.A.
   Author Affiliation: United States Steel Corp., Monroeville, PA, USA
   Journal: Review of Scientific Instruments   vol.41, no.12   p.1812-16
   Publication Date: Dec. 1970 Country of Publication: USA
   CODEN: RSINAK ISSN: 0034-6748
   Language: English   Document Type: Journal Paper (JP)
   Abstract: The field ion microscope atom probe makes possible the chemical
identification of individual atoms field desorbed from a sharp metal tip by
time of flight along a drift tube. An instrument to control the rate at
which desorption pulses are applied and to **record** the resulting data is
described. Rates of a few hundred pulses per second are readily achieved,
and the instrument can be **programmed** to **terminate** either after a
preset number of cycles or in response to the acquisition of the first
piece of data. This latter mode of operation is particularly convenient for
establishing the best field desorption conditions. Resolution of adjacent
mass numbers depends on the time resolution of the instrument; the best
time resolution achieved is 40 nsec, resulting in a mass resolution of
about 1% for typical ion travel times.
   Subfile: A
   Descriptors: chemical analysis; field ion microscopy; probes
   Class Codes: A8280 (Chemical analysis and related physical methods of
analysis)

16/5/27   (Item 1 from file: 233)

00534936   99PW05-006
   Mimio: electronic whiteboard substitute
   Epler, Anita
   PC World , May 1, 1999 , v17 n5 p85, 1 Page(s)
   ISSN: 0737-8939
   Company Name: Virtual Ink
   URL: http://www.virtual-ink.com
   Product Name: Virtual Ink Mimio
   Languages: English
   Document Type: Hardware Review
   Grade (of Product Reviewed): B
   Hardware/Software Compatibility: IBM PC Compatible
   Geographic Location: United States
   Presents   a   favorable review of the Mimio ($499), a portable electronic
whiteboard   solution   from   Virtual   Ink   (617).   Explains   that   this is a
simplified   solution   for   capturing   data from conventional whiteboards by
retrofitting   with a **folding** bar and using color- **coded**   dry-erase marker
sheaths and a pressure sensitive eraser. Explains that the position-sensing
optics   of   the   bar and the ultrasonic/infrared transmission of the market
sheaths   make   it possible for the device to **record**   pen strokes as images
via   serial   or USB connection to a computer. Says it is easy to set up and
works   on   whiteboards   up   to 4-by-8 feet in size. Notes that the cups may
loosen   from   the   board   unexpectedly   and the pens somet require a lot of
pressure.   Points   out the inability to convert the handwriting to editable
text.   Concludes   this   is   no   more expensive and a lot more portable than
integrated   electronic   whiteboards.   Includes   one   photo   and one product
summary. (kgh)
   Descriptors: Whiteboarding; Peripherals; Input/Output; Portable
   Identifiers: Virtual Ink Mimio; Virtual Ink

16/5/28   (Item 2 from file: 233)

00418493   96JR03-001
   **The   effects   of   content-structure   focusing   on   learner   structural
knowledge acquisition, retention, and disorientation in a hypermedia...**
   Beasley, Robert E; Waugh, Michael L
   Journal   of   Research on Computing in Education , March 1, 1996 , v28 n3
p271-281, 11 Page(s)
   ISSN: 0888-6504
   Languages: English
   Document Type: Feature Articles and News
   Geographic Location: United States
   Describes   a   study   investigating   the   effects   of   hypermedia
content-structure   on   a   learner's   structural   knowledge   acquisition,
retention,   and   disorientation.   Says   the results suggest that hypermedia
disorientation decreases and structural knowledge acquisition and retention
increase   when   a   learner's   attention is a least partially focused on the
structural   aspects   of   a   hypermedia   lesson.   Adds   that   instructional
designers   and   instructors sho strive for an appropriate **balance** between
structural   knowled   detailed   knowledge acquisition. Also says the learner
could   be   **instructed** to pay **close** attention to the structure and to how
the   various   concepts   are   related. Includes three charts and a reference
list. (dpm)
   Descriptors: Hypermedia; Research; Educational Computing

16/5/29   (Item 1 from file: 474)

06795726   NYT Sequence Number: 087432940628
A TOURNAMENT RECORD FOR BEING CARDED
New York Times, Col. 1, Pg. 10, Sec. B
Tuesday June 28 1994
DOCUMENT TYPE: Newspaper JOURNAL CODE: NYT LANGUAGE: English
RECORD TYPE: Abstract

ABSTRACT:
    Resulting yellow cards for cauttions and red cards for ejections are
reaching **record** levels in World Cup as referees have been **instructed** to
call physical play more **closely** ; graph (S)

SPECIAL FEATURES: Graph
DESCRIPTORS: SOCCER; WORLD CUP (SOCCER); OFFICIATING (SPORTS)
PERSONAL NAMES: YANNIS, ALEX

EKD   April 22, 2003

09931131
CIBC finally pulls the plug on U.S. electronic banking unit
  US: CIBC to close Amicus electronic banking operations
Globe & Mail (CGM)   15 Nov 2002
Language: ENGLISH

Canadian Imperial Bank of Commerce (CIBC) announced that it is to shut down
its Amicus electronic banking operations in the US, consisting of Amicus
FSB and CIBC National Bank, resulting in the elimination of 1,100 jobs over
several months, Termination fees have been paid to Safeway, as Amicus FSB
services were provided through Safeway Select Bank at supermarkets, and
Winn-Dixie Stores, whose supermarkets provided CIBC National Bank services
under the brand Marketplace Bank. Client deposits with a **balance**
exceeding US$ 1,000 will be transferred to discount stock brokerage E-Trade
Group. The **closed** operations had **not** been meeting financial
expectations, CIBC **explained** .

COMPANY: CANADIAN IMPERIAL BANK OF COMMERCE; CIBC; AMICUS; CIBC NATIONAL
BANK; MARKETPLACE BANK; AMICUS FSB; WINN-DIXIE STORES; SAFEWAY; E-TRADE
GROUP
EVENT: Plant/Facilities/Equipment (44); Labour Information (53);
COUNTRY: Canada (2CAN); United States (1USA);

03491492   INSPEC Abstract Number: A89134253
  Title: **Ply cracking and property degradations of symmetric** balanced
  laminates under general in-plane loading
  Author(s): Han, Y.M.; Hahn, H.T.
  Author Affiliation: Dept. of Eng. Sci. & Mech., Pennsylvania State Univ.,
University Park, PA, USA
  Journal: Composites Science and Technology   vol.35, no.4   p.377-97
  Publication Date: 1989 Country of Publication: UK
  CODEN: CSTCEH ISSN: 0266-3538
  U.S. Copyright Clearance Center Code: 0266-3538/89/$03.50
  Language: English   Document Type: Journal Paper (JP)
  Treatment: Theoretical (T)
  Abstract: The authors have previously proposed a method of using a
resistance curve to characterize transverse crack multiplication in
balanced symmetric laminates. The method was based on the concept of a
through-the-thickness inherent flaw and energy **balance** principle. This
model is further extended to shear and general in-plane loading conditions.
The corresponding mechanical property degradations due to transverse ply
cracking are also investigated. The effective longitudinal modulus and
Poisson's ratio depend not only on the crack density but also on the
thermal residual and applied stresses. The **reason** is that the cracks do
not **close** tightly even upon unloading due to the residual stress.
Experimental results for the mechanical property degradations correlate
well with the analysis except for the shear modulus. The nonlinear behavior
of the shear modulus should be considered for better correlation. (23
Refs)
  Subfile: A
  Descriptors: crack-edge stress field analysis; fibre reinforced
composites; laminates
  Identifiers: fiber reinforced composites; symmetric **balanced** laminates;
general in-plane loading; transverse ply cracking; Poisson's ratio; crack
density; shear modulus
  Class Codes: A4630N (Fracture mechanics, fatigue, and cracks); A6220M (
Fatigue, brittleness, fracture, and cracks)

                        EKD   April 22, 2003

17/5/3   (Item 2 from file: 2)
DIALOG(R)File   2:INSPEC

00583764   INSPEC Abstract Number: A73079340, B74000291
   Title: **Defect equilibria for extended point defects, with application to nonstoichiometric ceria**
   Author(s): Land, P.L.
   Author Affiliation: Wright-Patterson AFB, OH, USA
   Journal: Journal of the Physics and Chemistry of Solids   vol.34, no.11
p.1839-45
   Publication Date: Nov. 1973 Country of Publication: UK
   CODEN: JPCSAW ISSN: 0022-3697
   Language: English   Document Type: Journal Paper (JP)
   Treatment: Experimental (X)
   Abstract: The dependence of electronic conductivity and composition of
ceria on oxygen pressure is described by equilibrium equations for a
material containing oxygen vacancies, divacancies, cerium interstitials and
polarons, where these defects are considered to include distorted zones of
material. The analyses takes the extension of simple 'point defects' into
proper **account** , whereas earlier analyses have **not** . It is **concluded**
 that available data can be **explained** by polarons in equilibrium with
isolated oxygen vacancies, but not with divacancies or interstitial cerium
ions. (17 Refs)
   Subfile: A B
   Descriptors: cerium compounds; electrical conductivity of solids;
interstitials; oxygen; polarons; vacancies (crystal)
   Identifiers: defect equilibria; extended point defects; nonstoichiometric
ceria; equilibrium equations; polarons; O vacancy; Ce; CeO/sub 2/; O
divacancy; electronic conductivity; composition
   Class Codes: A6170B (Interstitials and vacancies); A7138 (Polarons and
electron-phonon interactions); A7220F (Low-field transport and mobility;
piezoresistance); A7280 (Conductivity of specific semiconductors and
insulators); B2520E (Oxides and ferrites)

   17/5/4   (Item 3 from file: 2)
DIALOG(R)File   2:INSPEC

00566485   INSPEC Abstract Number: A73068244
   Title: **Defect structure of nonstoichiometric ceria above 700C. (Polarons in equilibrium with vacancies)**
   Author(s): Land, P.L.
   Author Affiliation: Wright-Patterson AFB, OH, USA
   Journal: American Ceramic Society Bulletin   vol.52, no.4   p.342
   Publication Date: April 1973 Country of Publication: USA
   CODEN: ACSBA7 ISSN: 0002-7812
   Conference Title: 75th Annual Meeting and Exposition of the American
Ceramic Society (Abstracts only)
   Conference Sponsor: American Ceramic Soc.; et al
   Conference Date: 29 April-3 May 1973   Conference Location: Cincinnati,
OH, USA
   Language: English   Document Type: Conference Paper (PA); Journal Paper
(JP)
   Treatment: Theoretical (T)
   Abstract: The dependence of electronic conductivity and composition of
ceria on oxygen pressure is described by equilibrium equations for a
material containing oxygen vacancies, divacancies, cerium interstitials and
polarons where these defects are considered to include distorted zones of
material. The analyses takes the extension of simple 'point defects' into
proper **account** , whereas earlier analyses have **not** . It is **concluded**
 that available data can be **explained** by polarons in equilibrium with
isolated oxygen vacancies, but not with divacancies or interstitial cerium

ions.

Subfile: A

Descriptors: cerium compounds; electrical conductivity of solids; interstitials; polarons; refractories; vacancies (crystal)

Identifiers: defect structure; nonstoichiometric ceria; electronic conductivity; composition; equilibrium equations; vacancies; divacancies; interstitials; polarons; distorted zones of material; point defects; CeO_2; above 700 degrees C; O_2 pressure dependence

Class Codes: A6170B (Interstitials and vacancies); A7138 (Polarons and electron-phonon interactions); A8120L (Ceramics and refractories); A8140 (Treatment of materials and its effects on microstructures and properties)